VERIFICATION OF TRANSLATION

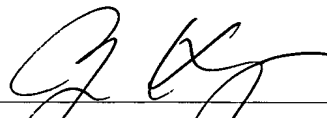Patent Application No. 2002-282702

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am the translator of the documents attached and I verify that the attached is a

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(TRANSLATION)

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2

【Name of Document】　　　Specification

【Title of the Invention】　　CONTENT PROVIDING SERVER,
CONTENT PROVIDING METHOD, AND CONTENT PROVIDING PROGRAM

【Scope of Claim for a Patent】

　　【Claim 1】　A content providing server which performs
format conversion of a content to be provided to a content user
terminal which receives a content to use through a communications
network, comprising:

　　user information storage means for receiving user
information from the content user terminal through the
communications network and storing it;

　　program setting means for setting a format conversion
program to be used for the content user terminal, based on the
stored user information;

　　format conversion means for format-converting the content
to be provided to the content user terminal, by using the format
conversion program set for the content user terminal; and

　　content provision means for providing the content
format-converted by the format conversion means to the content
user terminal through the communications network.

　　【Claim 2】　The content providing server according to
claim 1, comprising:

　　provision request information reception means for
receiving, through the communications network, provision
request information from a content owner who owns a content,

　　wherein the format conversion means format-converts a
content contained in the provision request information by using

3

a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【Claim 3】 The content providing server according to claim 1, comprising:

provision request information reception means for receiving, through the communications network, provision request information from a content owner who owns a content,

wherein the format conversion means selects, from among stored contents, a content indicated by content designation information contained in the provision request information, and format-converts the selected content by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【Claim 4】 The content providing server according to any one of claims 1 to 3,

wherein the user information contains information regarding equipment employed when a content is used, and

from among a plurality of format conversion programs prepared in advance correspondingly to types of employed equipment, the program setting means selects a format conversion program for the employed equipment indicated by the user information and sets it as a format conversion program to be used for a content user terminal indicated by the user information.

【Claim 5】 The content providing server according to any one of claims 1 to 4,

4

wherein a content is configured to include image data and is utilized as movie data which is used at least to show a movie.

【Claim 6】 A content providing method for performing format conversion of a content to be provided to a content user terminal which receives a content to use through a communications network, comprising the steps of:

receiving user information from the content user terminal through the communications network and storing it;

setting a format conversion program to be used for the content user terminal, based on the stored user information;

format-converting the content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and

providing the format-converted content to the content user terminal through the communications network.

【Claim 7】 The content providing method according to claim 6, comprising:

receiving, through the communications network, provision request information from a content owner who owns a content,

wherein a content contained in the provision request information is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【Claim 8】 The content providing method according to claim 6, comprising:

receiving, through the communications network, provision request information from a content owner who owns a content,

wherein a content indicated by content designation information contained in the provision request information is selected from among stored contents, and the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【Claim 9】 The content providing method according to any one of claims 6 to 8,

wherein the user information contains information regarding equipment employed when a content is used, and

a format conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to types of employed equipment, and is set as a format conversion program to be used for a content user terminal indicated by the user information.

【Claim 10】 A content providing program for implementing format conversion of a content to be provided to a content user terminal which receives a content to use through a communications network,

causing a computer to execute the steps of:

receiving user information from the content user terminal through the communications network and storing it;

setting a format conversion program to be used for the content user terminal, based on the stored user information;

format-converting the content to be provided to the content user terminal, by using the format conversion program set for

6

the content user terminal; and

　　providing the format-converted content to the content user terminal through the communications network.

　　【Claim 11】 The content providing program according to claim 10,

　　causing the computer to further execute the step of:

　　receiving, through the communications network, provision request information from a content owner who owns a content,

　　wherein, when format conversion is performed, a content contained in the provision request information is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

　　【Claim 12】 The content providing program according to claim 10,

　　causing the computer to further execute the step of:

　　receiving, through the communications network, provision request information from a content owner who owns a content,

　　wherein, when format conversion is performed, a content indicated by content designation information contained in the provision request information is selected from among stored contents, and the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

　　【Claim 13】 The content providing program according to any one of claims 10 to 12,

wherein the user information contains information regarding equipment employed when a content is used, and

when a format conversion program is set, a format conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to types of employed equipment, and is set as a format conversion program to be used for a content user terminal indicated by the user information.

【Detailed Description of the Invention】

【0001】

【Technical Field of the Invention】

The present invention relates to a content providing server and a content providing method by which a content to be provided to a content user which uses it to show a movie and the like is format-converted and then provided, as well as a program for causing a computer to execute the processing for format-converting a content to be provided to a content user.

【0002】

【Prior Art】

Conventionally, it is designed that when a movie has been made by a movie producer, movie films are distributed to movie theaters that show the movie. Specifically, a movie producer shoots and edits a film, thereby making an edited film, from which a master film for distribution is created. Next, from this master film for distribution, a required number of edited films are made and delivered to film-distributing firms. Each

8

film-distributing firm creates a large number of films from the received edited film and distributes the created films as movie films to movie theaters respectively. Incidentally, when the showing period for the movie ends, the movie film is returned from each movie theater.

【0003】

According to the above-described distribution system, in addition to the need to make a large number of movie films, the movie films have to be distributed by delivery and be reclaimed. Therefore, a large quantity of time is required, and cost is high.

【0004】

In recent years, there has been proposed a system in which a movie is made not as a movie film but as movie data, which is electronic data, and the movie data is delivered to film-distributing firms and movie theaters through a communications network (for example, see Patent Documents 1 and 2).

【0005】

[Patent Document 1]

Japanese Patent Application Unexamined Publication No. 2002-118834

[Patent Document 2]

Japanese Patent Application Unexamined Publication No. 2002-171471

【0006】

[Problems to be Solved by the Invention]

However, in the case where movie data is delivered by a movie producer through a communications network, conversion to a format that can be handled at a delivery-destination movie theater is needed. Thus, there has been a problem that each movie producer has to format-convert movie data for each destination and then distribute the format-converted movie data, that is, has to perform burdensome processing.

【0007】

Moreover, a movie produced by a movie producer is not only used for viewing at movie theaters but also utilized in various forms, such as being recorded on DVDs or videotapes for sale, or being broadcast on television. In these cases, there has been a similar problem that format conversion is needed, gearing the format to users in respective usage environments.

【0008】

An object of the present invention is to solve the above-described problems and to make it possible, when a content is provided to a content user, to provide the content format-converted to match with the usage environment of the content user, without imposing burdensome work on the content owner or the content user.

【0009】

【Means for Solving the Problems】

To solve the above-described problems, a content providing server (for example, a format conversion server 20) of the present invention is a content providing server which performs format conversion of a content to be provided to a content user terminal

10

(for example, a content user terminal 40) which receives a content to use through a communications network, including: user information storage means (for example, means for executing Step S101 through Step S104) for receiving user information from the content user terminal through the communications network and storing it; program setting means (for example, means for executing Step S201 through Step S203) for setting a format conversion program to be used for the content user terminal, based on the stored user information; format conversion means (for example, means for executing Step S302 through Step S304) for format-converting the content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and content provision means (for example, means for executing Step S305) for providing the content format-converted by the format conversion means, to the content user terminal through the communications network.

【0010】

With the above-described configuration, when a content is provided to a provision destination of the content, it is possible to provide the content after converting it into a format matching with the usage environment at the provision destination of the content. Accordingly, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the usage environment of the content user, without considering the format used on the content user side. Accordingly, the content owner no longer needs to do the burdensome work of converting a content into

11

a format suitable for the usage environment of each content user. Moreover, a content user can receive from each content owner a content in a state of being converted into its own format used, only by registering user information.

【0011】

The configuration may also be made to include provision request information reception means (for example, means for executing Step S301) for receiving, through the communications network, provision request information from a content owner who owns a content, so that the format conversion means format-converts a content contained in the provision request information by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【0012】

With the above-described configuration, it is possible to provide a content received from a content owner to a provision-destination content user designated by the content owner after converting the content into the format used at the provision destination.

【0013】

The configuration may also be made to include provision request information reception means for receiving, through the communications network, provision request information from a content owner who owns a content, so that the format conversion means selects, from among stored contents, a content indicated by content designation information contained in the provision

12

request information, and format-converts the selected content by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【0014】

With the above-described configuration, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0015】

The configuration may also be made so that the user information contains information regarding equipment (for example, a projector and the like) employed when a content is used, and that, from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed equipment, the program setting means selects a format conversion program for the employed equipment indicated by the user information and sets it as the format conversion program to be used for a content user terminal indicated by the user information.

【0016】

With the above-described configuration, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the equipment employed by the content user, without considering the employed equipment that the content user employs to use the

13

content.

【0017】

It is preferable that a content be configured to include image data and be utilized as movie data which is used at least to show a movie.

【0018】

With the above-described configuration, when movie data is delivered, it is possible to provide the movie data format-converted suitably for the usage environment of a user, without considering the usage environment of the user of the movie data.

【0019】

Moreover, a content providing method of the present invention is a content providing method for performing format conversion of a content to be provided to a content user terminal which receives a content to use through a communications network, including the steps of: receiving user information from the content user terminal through the communications network and storing it; setting a format conversion program to be used for the content user terminal, based on the stored user information; format-converting the content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and providing the format-converted content to the content user terminal through the communications network.

【0020】

With the above-described configuration, when a content

14

owner provides a content to a content user, the content owner
can provide the content format-converted suitably for the usage
environment of the content user, without considering the format
used on the content user side. Accordingly, a content owner
no longer needs to do the burdensome work of converting a content
into a format suitable for the usage environment of each content
user. In addition, a content user can receive from each content
owner a content in a state of being converted into its own format
used, only by registering user information.

【0021】

The configuration may also be made so that provision
request information from a content owner who owns a content is
received through the communications network, and that a content
contained in the provision request information is
format-converted by using a format conversion program set for
a provision-destination content user terminal contained in the
provision request information.

【0022】

With the above-described configuration, it is possible
to provide a content received from a content owner to a
provision-destination content user designated by the content
owner, after converting the content into the format used at the
provision destination.

【0023】

The configuration may also be made so that provision
request information from a content owner who owns a content is
received through the communications network, and that a content

15

indicated by content designation information contained in the provision request information is selected from among stored contents and the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【0024】

With the above-described configuration, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0025】

The configuration may also be made so that the user information contains information regarding equipment employed when a content is used, and that a format conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed equipment, and is set as the format conversion program to be used for a content user terminal indicated by the user information.

【0026】

With the above-described configuration, when a content owner provides a content to a content user, the content owner can provides the content format-converted suitably for the equipment employed by the content user, without considering the

employed equipment that the content user employs to use the content.

【0027】

Furthermore, a content providing program of the present invention is a content providing program for implementing format conversion of a content to be provided to a content user terminal which receives a content to use through a communications network, causing a computer to execute the steps of: receiving user information from the content user terminal through the communications network and storing it; setting a format conversion program to be used for the content user terminal, based on the stored user information; format-converting the content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and providing the format-converted content to the content user terminal through the communications network.

【0028】

With the above-described configuration, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the usage environment of the content user, without considering the format used on the content user side. Accordingly, a content owner no longer needs to do the burdensome work of converting a content into a format suitable for the usage environment of each content user. In addition, a content user can receive from each content owner a content in a state of being converted into its own format used, only by registering user information.

17

【0029】

The configuration may also be made to cause the computer to further execute the step of receiving, through the communications network, provision request information from a content owner who owns a content, so that, when format conversion is performed, a content contained in the provision request information is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【0030】

With the above-described configuration, it is possible to provide a content received from a content owner to a provision-destination content user designated by the content owner after converting the content into the format used at the provision destination.

【0031】

The configuration may also be made to cause the computer to further execute the step of receiving, through the communications network, provision request information from a content owner who owns a content, so that, when format conversion is performed, a content indicated by content designation information contained in the provision request information is selected from among stored contents, and the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information.

【0032】

With the above-described configuration, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0033】

The configuration may also be made so that the user information contains information regarding equipment employed when a content is used, and that, when a format conversion program is set, a format conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed equipment, and is set as the format conversion program to be used for a content user terminal indicated by the user information.

【0034】

With the above-described configuration, when a content owner provides a content to a content user, the content owner can provides the content format-converted suitably for the equipment employed by the content user, without considering the employed equipment that the content user employs to use the content.

【0035】

【Mode for Carrying Out the Invention】

Hereinafter, an embodiment of the present invention will be described with reference to the drawings.

FIG. 1 is a block diagram showing a configuration example

of a content providing system 10 for implementing a content providing method according to the present invention. The content providing system 10 includes a format conversion server 20, content owner terminals 30, and content user terminals 40. The format conversion server 20, content owner terminals 30, and content user terminals 40 are each connected to a communications network 50 such as the Internet. Note that, although FIG. 1 shows one content owner terminal 30 and one content user terminal 40, they can be provided in any numbers.

【0036】

In the present example, it is assumed that movie data to be used to show a movie is used as a content to be delivered in the present system 10. The movie data may be what is obtained by converting a film used for shooting into electronic data, or may be what is captured as electric data at the time of shooting by doing shooting with a digital video camera or the like. Note that movies based on movie data may use any images such as live actions, animations, and computer graphics.

【0037】

The format conversion sever 20 is composed of an information processor such as an internet sever, for example, and is administered by a system administrator administering the present system 10. The format conversion server 20 has the functionality as a WWW (World Wide Web) server and also has the function of managing Web pages including a Web site for providing services such as accepting a registration of or a change in various kinds of information.

【0038】

Moreover, the format conversion server 20 is provided with a database 21 for storing various kinds of information such as information acquired from each content user terminal 40 and format conversion programs for format conversion of contents. In addition, the format conversion server 20 has a variety of functions such as the function of format-converting a content by using a format conversion program in order to convert the file format or the like of the content, and the function of delivering a content to each content user terminal 40.

【0039】

The content owner terminals 30 and the content user terminals 40 are each composed of an information processor such as a personal computer, for example. The content owner terminals 30 and the content user terminals 40 each has an environment (an environment in terms of hardware, software, and the like) in which each of them can make a connection to the communications network 50 such as the Internet and can transmit/receive information by using the communications network 50.

【0040】

The content owner terminals 30 are administered by content owners. Specifically, for example, a movie producer who has made a movie that is a content, corresponds to a content owner.

【0041】

The content user terminals 40 are administered by various types of content users who place contents on public view. Specifically, for example, the manager of a movie theater which

shows a movie, a person in charge in a television broadcasting station which broadcasts a content on a program, or the like corresponds to a content user.

【0042】

Next, operations of the content providing system 10 in the present example will be described with reference to the drawings.

FIG. 2 is a flow chart showing an example of user information registration processing in the content providing system 10 according to the present example.

【0043】

Here, the format conversion server 20 acquires, from the manager of a movie theater A who administers the content user terminal 40, user information regarding the equipment employed at the movie theater A, the usage environment of the equipment, and the like and then performs the processing for storing the user information into the database 21. Incidentally, it is assumed that the manager of the movie theater A has made a user registration at the event information delivery server 20 by using the content user terminal 40 and has acquired a user ID and a password in advance.

【0044】

In the user information registration processing, first, upon request from a content user terminal 40 for access, the format conversion server 20 requests to input a user IP and a password. Note that the access request is made by, for example, designating the URL (Uniform Resource Locator) of the format

22

conversion server 20. Upon authentication based on the user ID and password input in response to the request, the format conversion server 20 grants access from the content user terminal 40. Upon grant of access, the content user terminal 40 makes a registration request or change request to the format conversion server 20 to register user information, in accordance with an operation by the manager of the movie theater A.

【0045】

Upon request from the content user terminal 40 to register or change user information (Step S101), the format conversion server 20 transmits user information entry screen information for displaying a user information entry screen to the content user terminal 40 through the network 50 (Step S102).

【0046】

Upon acquisition of the user information entry screen information, the content user terminal 40 displays the user information entry screen based on the user information entry screen information on a display device (for example, a liquid crystal display) provided to itself.

【0047】

FIG. 3 is an explanatory diagram showing an example of the user information entry screen. As shown in FIG. 3, the user information entry screen is provided with a display field 61 for displaying the name of the movie theater A, which is a user, and entry fields 62 where user information is entered. The user information is, apart from the name of the movie theater A, for example, information for determining the optimum format of movie

23

data for each movie theater, and includes various kinds of information on the equipment employed by the user, usage environment, and the like, such as screen-related information including the material, color, size, shape, and the like, projector-related information including the maker, model type, lot, mounted-filter type, and the like, and sound-related information including the acoustic properties, reverberation value, number of channels, surround system, and the like. Note that each item shown in FIG. 3 is an example. An item may be provided for a content user to designate a desired color characteristic, and an item may also be provided for a content user to designate his/her preference such as "stronger white" or "brighter."

【0048】

Based on the projector-related information and the sound-related information, the file format of movie data that can be handled at the movie theater A is determined. Moreover, based on the screen-related information and the sound-related information, the optimum value of brightness and optimum sound quality are determined. For example, for a movie theater with relatively poor sound equipment, it is conceivable to make the amount of data smaller if not high audio quality. An optimum format is determined depending on the degrees by which these various items such as the file format, brightness, and audio quality are adjusted.

【0049】

When the user information entry screen is displayed, the

24

manager of the movie theater A enters user information about the movie theater A that the manger manages him/herself, in each entry field 62 by using an input device (for example, a keyboard and a mouse) provided to the content user terminal 40. The content user terminal 40, in accordance with an instruction from the manager who has finished entering the user information, transmits the entered user information to the format conversion server 20 through the communications network 50.

【0050】

Incidentally, in the case where a registration of user information has been made previously, the current user information is displayed in each entry field 62 when the user information entry screen is displayed on the content user terminal 40. Accordingly, when making a change, it is sufficient to delete or change the already-registered information displayed in the entry fields 62.

【0051】

Upon receipt of the user information (Step S103), the format conversion server 20 stores the received user information into the database 21 (Step S104) and newly registers, or updates, the user information. When the user information has been stored in the database 21, the user information registration processing here is complete.

【0052】

The above-described user information registration processing is carried out based on a request from each user, whereby varieties of user information from a plurality of content

user terminals 40 are registered and stored in the database 21.

【0053】

FIG. 4 is a flow chart showing an example of conversion program setting processing in the content providing system 10 according to the present example. The conversion program setting processing is carried out when, for example, user information is registered or changed.

【0054】

Here, carried out is the processing in which, when user information from the manager of the movie theater A administering the content user terminal 40 has been registered, the format conversion server 20, based on the user information, selects and sets a format conversion program to be used for format conversion of a content to be provided to the movie theater A.

【0055】

In the conversion program setting processing, first, the format conversion server 20 reads out target user information from the database 21. Here, the user information registered by the manager of the movie theater A is read out (Step S201). Upon reading of the user information, the format conversion server 20 selects a format conversion program to be used for format conversion, based on the contents of the user information (Step S202).

【0056】

In the present example, multiple types of format conversion programs corresponding to variations in the contents of user information are registered in advance in the database 21.

Specifically, for example, format conversion programs varying with projector model type and varying with mounted-filter type are prepared, and format conversion programs varying with acoustic properties, reverberation value, the number of channels, and surround system type are prepared.

【0057】

In Step S202, a formation conversion program suitable for the contents of the user information read out in Step S201 is selected from among the plurality of format conversion programs provided in advance correspondingly to the contents of user information.

【0058】

The format conversion server 20 then sets the selected format conversion program as the format conversion program to be used when a content is provided to the theater A (Step S203). Specifically, to-be-used-program setting information stored in the database 21, which will be described later, is updated so that information indicative of the data conversion program selected in Step S202 is associated with information indicative of the movie theater A. When the to-be-used-program setting information has been updated (Step S203), the conversion program setting processing here is complete.

【0059】

FIG. 5 is an explanatory diagram showing an example of the to-be-used-program setting information stored in the database 21. The to-be-used-program setting information indicates information in which the information indicative of

each user is associated with the format conversion program to be used when a content is provided to the user in question.

【0060】

The to-be-used-program setting information shown in FIG. 5 indicates that, for example, a format conversion program X is used when a content is provided to a user A (for example, the movie theater A).

【0061】

FIG. 6 is a flow chart showing an example of content providing processing in the content providing system 10 according to the present example.

【0062】

Here, carried out is the processing in which the format conversion server 20, in response to a request from a content owner terminal 30, provides a content C to a content user terminal 40.

【0063】

In the content providing processing, first, the format conversion server 20 receives content provision request information (hereinafter, referred to as "provision request information") from a content owner terminal 30 through the communications network 50 (Step S301). Note that the provision request information contains information indicative of the content C and information indicative of the provision destination of the content C. Here, it is assumed that the movie theater A is designated as the provision destination of the content C.

【0064】

Upon receipt of the provision request information from the content owner server 30 (Step S301), the format conversion server 20, based on the received provision request information, identifies the movie theater A that is the provision destination of the content C, which is contained in the provision request information (Step S302). Next, the format conversion server 20, based on the to-be-used-program setting information (see FIG. 5), reads the format conversion program (for example, the format conversion program X) to be used when a content is provided to the movie theater A (Stet S303) and, by using the read format conversion program, performs format conversion of the content C, which is contained in the provision request information (Step S304).

【0065】

The format conversion server 20 then transmits the format-converted content C to the content user terminal 40 administered by the manager of the movie theater A (Step S305). When the format-converted content C has been transmitted, the content providing processing here is complete.

【0066】

At the content user terminal 40 administered by the manager of the movie theater A, a movie is screened by using the format-converted content C. The format-converted content C is data with a format matching with the equipment employed at the movie theater A and the usage environment thereof. Accordingly, the movie can be smoothly screened at the movie theater A.

【0067】

As described above, the configuration is made so that, when a content is provided from a content owner to a content user, the content is provided via the format conversion server 20 at which user information ha been registered, whereby the content can be converted at the format conversion server 20 to a format suitable for the content user, and the content with the format matching with the usage environment of the content user can be provided.

【0068】

The content owner can provide a content with a format matching with the usage environment of each content user only by providing the content via the formation conversion server 20, without considering the formats used on the content user side. Accordingly, the content owner does not need to grasp the usage environment of each content user, neither needing to perform the processing of conversion to a format matching with the usage environment of each content user, nor to keep each format-converted content. Accordingly, the content owner is released from the burdensome work for adjusting the format of a content for each user.

【0069】

The content user can receive a content with a format matching with its own usage environment only by receiving the content via the formation conversion server 20 at which the content user has registered user information. Accordingly, the content user does not need to notify each content owner of its own usage environment. Accordingly, the content user is

30

released from the burdensome work for receiving a content with a format suitable for itself.

【0070】

Moreover, as described above, the configuration is made so that the format conversion server 20 provides a format-converted content to a designated content user, based on provision request information from a content owner which contains information indicative of the content and its provision destination, whereby it is possible to format-convert and provide the content received from the content owner to the provision-destination content user designated by the content owner. Additionally, the format conversion server 20 does not need to store contents.

【0071】

Furthermore, as described above, the configuration is made so that user information contains information regarding the equipment (for example, a projector and the like) employed when a content is used. Accordingly, it is possible to provide a content format-converted suitably for the equipment employed by a content user. Additionally, for a content owner, it is possible to provide a content to a content user, without considering the equipment that the content user employs to use the content.

【0072】

Incidentally, although the configuration is such that provision request information contains information indicative of a content and a provision destination of the content in the

31

foregoing embodiment, it is also possible that a content is not contained. In this case, it is sufficient that a content owner transmits and registers a content at the formation conversion server 20 in advance, and that provision request information is configured to contain information for identifying a content and information indicative of a provision destination of the content. By making the configuration as described above, it is possible to format-convert and provide a content received from a content owner and stored, to a provision-destination content user designated by the content owner. Additionally, the content owner does not need to store contents.

【0073】

Moreover, although description has been given on the assumption that a content is movie data in the foregoing embodiment, a content may also be other one, such as software storing an event such as a concert or stage play, which are held at various facilities such as civic centers and concert halls, as long as the content is used in multiple usage environments. In addition, a content may include any information, such as moving-picture data, still-image data, and audio data.

【0074】

Further, although description has been give on the assumption that a content user is the manager of a movie theater in the foregoing embodiment, a content user may be anyone as long as they use a content through the provision thereof, and may be, for example, a person in charge at a television broadcasting station or an ordinary personal user. For example,

32

in the case of a personal user, since it is conceivable that the personal user uses a content with a personal computer, mobile telephone terminal, or the like, it is sufficient that the model type of the personal computer or mobile telephone terminal is registered as the user information. For the server 20, it is sufficient to perform conversion to a format matching with the model type each user uses.

【0075】

Furthermore, although the configuration is such that movie data as a content is transmitted through the communications network 50 in the foregoing embodiment, it is preferable that, when movie data is delivered, the load of communication be reduced by compressing the data, or the leakage of information be prevented by encrypting the data.

【0076】

Moreover, as to the formats of contents transmitted from the content owner side, which is not particularly mentioned in the foregoing embodiment, it is sufficient that, for example, they are made uniform in general. Additionally, in the case where the formats are not made uniform in general, it is sufficient that the formats are made uniform for each content owner, and these formats are grasped on the server 20 side.

【0077】

Further, when a content is delivered to content users and the like, it is sufficient to provide content data, for example, by one operation. In this case, it is also possible that the content is stored on the content user side, and the content is

33

used (for example, to show a movie) by using the stored data. Additionally, it is also possible that content data is provided, for example, by means of a scheme called streaming. In this case, a content user performs the processing for reproduction and the like based on the received data while carrying out the processing for receiving the content.

【0078】

Furthermore, the processing for billing content users and content owners, which is not particularly mentioned in each foregoing embodiment, can be performed in any way. For example, it is sufficient that varieties of processing are performed, such as administering the cost of making a content, the cost of advertising, the sales of content usage, and the like in the present system 10, calculating respective shares of the content users and content owners by the server 20 in the present system 10, and instructing a server managed by a financial institution to transfer a predetermined amount of money, for example, from an account designated by a content user to an account designated by a content owner.

【0079】

Moreover, although the configuration is such that various kinds of information are transmitted and received through the communications network 50 in each foregoing embodiment, it is also possible that the transmissions and receptions of the various kinds of information such as, for example, user information, are partly or entirely made by mailing a recording medium with data stored thereon or paper with data written

34

thereon.

【0080】

Note that, although not particularly mentioned in each foregoing embodiment, the format conversion server 20 operates in accordance with a control program (a content providing program) for implementing each processing described above. This control program is a program for causing the format conversion server 20 to execute the steps of: receiving user information from a content user terminal through a communications network and storing it; based on the stored user information, setting a format conversion program to be used for the content user terminal; format-converting a content to be provided to the content user terminal by using the format conversion program set for the content user terminal; and providing the format-converted content to the content user terminal through the communications network.

【0081】

【Effects of the Invention】

As described hereinabove, the content providing server according to the present invention includes: user information storage means for receiving user information from a content user terminal through a communications network and storing it; program setting means for setting a format conversion program to be used for the content user terminal, based on the stored user information; format conversion means for format-converting a content to be provided to the content user terminal by using the format conversion program set for the content user terminal;

and content provision means for providing the content format-converted by the format conversion means, to the content user terminal through the communications network. Accordingly, when a content is provided to a provision destination of the content, it is possible to provide the content after converting it into a format matching with the usage environment at the provision destination of the content.

【0082】

The configuration is made to include provision request information reception means for receiving, through the communications network, provision request information from a content owner who owns a content, so that the format conversion means format-converts a content contained in the provision request information by using a format conversion program set for a provision-destination content user terminal contained in the provision request information. Accordingly, it is possible to provide a content received from a content owner to a provision-destination content user designated by the content owner, after conversing the content to the format used at the provision destination.

【0083】

The configuration is made to include provision request information reception means for receiving, through the communications network, provision request information from a content owner who owns a content, so that the formation conversion means selects, from among stored contents, a content indicated by content designation information contained in the provision

36

request information and format-converts the selected content by using a format conversion program set for a provision-destination content user terminal contained in the provision request information. Accordingly, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0084】

The configuration is made so that the user information contains information regarding equipment employed when a content is used, and that the program setting means selects, from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed equipment, a format conversion program for the employed equipment indicated by the user information and sets it as the format conversion program to be used for a content user terminal indicated by the user information. Accordingly, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the equipment employed by the content user, without considering the employed equipment that the content user employs to use the content.

【0085】

A content is configured to include image data. In the case where a content is configured to be utilized as movie data which is used at least to show a movie, it is possible, when movie data is delivered, to provide the movie data

format-converted suitably for the usage environment of a user, without considering the usage environment of the user of the movie data.

【0086】

Moreover, the content providing method according to the present invention includes the steps of: receiving user information from a content user terminal through a communications network and storing it; setting a format conversion program to be used for the content user terminal, based on the stored user information; format-converting a content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and providing the format-converted content to the content user terminal through the communications network. Accordingly, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the usage environment of the content user, without considering the format used on the content user side.

【0087】

In the case where the configuration is made so that provision request information from a content owner who owns a content is received through the communications network, and that a content contained in the provision request information is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information, it is possible to provide a content received from a content owner to a provision-destination

content user designated by the content owner, after converting the content into a format used at the provision destination.

【0088】

In the case where the configuration is made so that provision request information from a content owner who owns a content is received through the communications network, that a content indicated by content designation information contained in the provision request information is selected from among stored contents, and that the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0089】

In the case where the configuration is made so that the user information contains information regarding equipment employed when a content is used, and that a format conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed equipment, and is set as the format conversion program to be used for a content user terminal indicated by the user information, then when a content owner provides a content to a content user, the content owner can provide the content

format-converted suitably for the equipment employed by the content user, without considering the employed equipment that the content user employs to use the content.

【0090】

Furthermore, a content providing program according to the present invention causes a computer to execute the steps of: receiving user information from a content user terminal through a communications network and storing it; setting a format conversion program to be used for the content user terminal, based on the stored user information; format-converting a content to be provided to the content user terminal, by using the format conversion program set for the content user terminal; and providing the format-converted content to the content user terminal through the communications network. Accordingly, when a content owner provides a content to a content user, the content owner can provide the content format-converted suitably for the usage environment of the content user, without considering the format used on the content user side.

【0091】

In the case where the configuration is made to cause the computer to further execute the step of receiving, through the communications network, provision request information from a content owner who owns a content, so that, when format conversion is performed, a content contained in the provision request information is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information, it is possible

40

to provide a content received from a content owner to a provision-destination content user designated by the content owner after converting the content into the format used at the provision destination.

【0092】

In the case where the configuration is made to cause the computer to further execute the step of receiving, through the communications network, provision request information from a content owner who owns a content, so that, when format conversion is performed, a content indicated by content designation information contained in the provision request information is selected from among stored contents and the selected content is format-converted by using a format conversion program set for a provision-destination content user terminal contained in the provision request information, it is possible to read out a content designated by a content owner and provide it to a provision-destination content user designated by the content owner after converting it into the format used at the provision destination.

【0093】

In the case where the configuration is made so that the user information contains information regarding equipment employed when a content is used, and that, when a content conversion program is set, a formation conversion program for the employed equipment indicated by the user information is selected from among a plurality of format conversion programs prepared in advance correspondingly to the types of employed

41

equipment, and is set as the format conversion program to be used for a content user terminal indicated by the user information, it is possible, when a content owner provides a content to a content user, to provide the content format-converted suitably for the equipment employed by the content user, without considering the employed equipment that the content user employs to use the content.

【Brief Description of the Drawings】

【FIG. 1】　FIG. 1 is a block diagram showing an example of the configuration of a content providing system.

【FIG. 2】　FIG. 2 is a flow chart showing an example of user information registration processing.

【FIG. 3】　FIG. 3 is an explanatory diagram showing an example of a user information entry screen.

【FIG. 4】　FIG. 4 is a flow chart showing an example of conversion program setting processing.
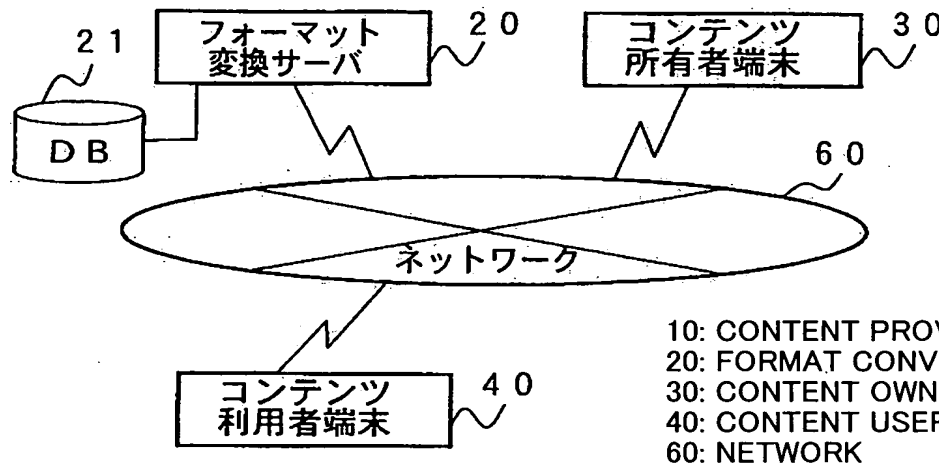
【FIG. 5】　FIG. 5 is an explanatory diagram showing an example of to-be-used program setting information.

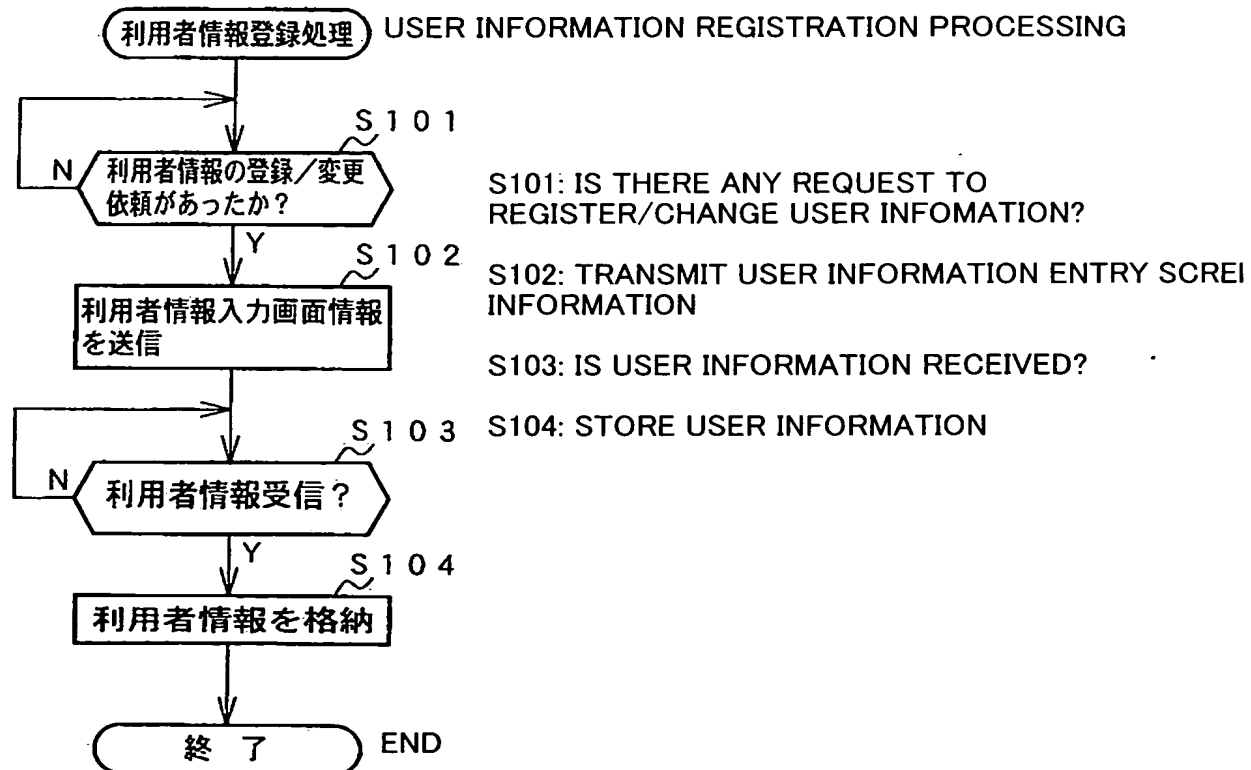【FIG. 6】　FIG. 6 is a flow chart showing an example of content providing processing.

【Description of the Reference Numerals】

10　　Content providing system

20　　Format conversion server

21　　Database

30　　Content owner terminal

40　　Content user terminal

50　　Communications network

42

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Application No. : 2002-282702　　Page: 1/3

【書類名】　図面
── [Name of Document] Drawings

【図１】
[FIG. 1]

21
フォーマット
変換サーバ　　20
コンテンツ
所有者端末　　30

ＤＢ

60

ネットワーク

コンテンツ
利用者端末　　40

10: CONTENT PROVIDING SYSTEM
20: FORMAT CONVERSION SERVER
30: CONTENT OWNER TERMINAL
40: CONTENT USER TERMINAL
60: NETWORK

１０：コンテンツ提供システム

【図２】
[FIG. 2]

利用者情報登録処理　USER INFORMATION REGISTRATION PROCESSING

S101

N　利用者情報の登録／変更
依頼があったか？

Y　S102

利用者情報入力画面情報
を送信

S103

N　利用者情報受信？

Y　S104

利用者情報を格納

終　了　END

S101: IS THERE ANY REQUEST TO
REGISTER/CHANGE USER INFOMATION?

S102: TRANSMIT USER INFORMATION ENTRY SCREI
INFORMATION

S103: IS USER INFORMATION RECEIVED?

S104: STORE USER INFORMATION

【図３】
[FIG. 3]　　　　　　　　　　USER INFORMATION ENTRY SCREEN

利用者情報入力画面

○○映画館　～　61　MATERIAL　COLOR　　SIZE　　　SHAPE
○○ MOVIE THEATER
　　　　　　　　　材質　　　　色　　　サイズ　　形状

スクリーン
SCREEN

プロジェクタ　　メーカー　　機種　　　ロット　　装着フィルター種別
PROJECTOR

　　　　　　音響特性　残響値　　　　MAKER　　MODEL TYPE　　LOT　　MOUNTED-FILTER TYPE
　　　　　　　　　　　　　　　　　REVERBERATION VALUE
音　響　　　　　　　　　　　　　　　ACOUSTIC PROPERTIES
SOUND　チャネル数　サラウンド方式

　　　NUMBER OF CHANNELS　　SURROUND SYSTEM

62

【図４】
[FIG. 4]

変換プログラム設定処理　CONVERSION PROGRAM SETTING PROCESSING

S201

利用者情報を読み出す　　　　　S201: READ USER INFORMATION

S202　　　　　　　　　　S202: SELECT CONVERSION PROGRAM

変換プログラムを選択

S203　　　　　　　　　　S203: SET AS PROGRAM TO BE USED

使用プログラムに設定

終　了　END

【図5】
[FIG. 5]

DELIVERY DESTINATION　　　　PROGRAM TO BE USED

配信先	使用プログラム
利用者Ａ	フォーマット変換プログラムＸ
利用者Ｂ	フォーマット変換プログラムＹ
利用者Ｃ	フォーマット変換プログラムＺ
⋮	⋮

USER A — FORMAT CONVERSION PROGRAM X
USER B — FORMAT CONVERSION PROGRAM Y
USER C — FORMAT CONVERSION PROGRAM Z

【図6】
[FIG. 6]

コンテンツ提供処理　CONTENT PROVIDING PROCESSING

S301　提供依頼情報受信？　N/Y

S301: IS PROVISION REQUEST INFORMATION RECEIVED?

S302　配信先を特定

S302: IDENTIFY DELIVERY DESTINATION

S303　フォーマット変換プログラムを読出

S303: READ FORMAT CONVERSION PROGRAM

S304　フォーマット変換

S304: CONVERT FORMAT

S305　コンテンツを送信

S305: TRANSMIT CONTENT

終了　END

45
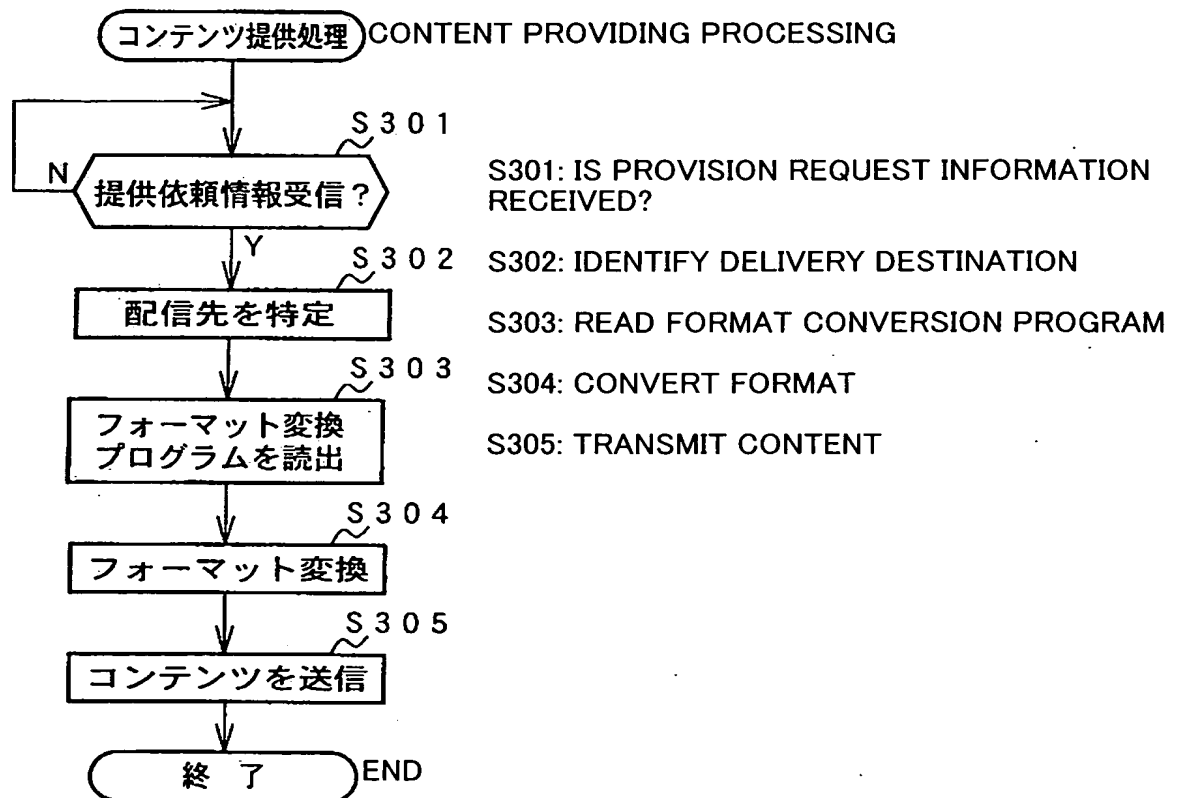
【Name of Document】　　　Abstract

【Abstract】

【Object】　　To make it possible to provide a content format-converted to match with the usage environment of a content user, without imposing burdensome work.

【Solving Means】　　In content providing processing, a format conversion server receives provision request information from a content owner terminal and determines that a provision destination indicated by the provision request information is a movie theater A.　　Next, based on to-be-used program setting information, the format conversion server reads a format conversion program to be used when a content is provided to the movie theater A, and format-converts a content C contained in the provision request information by using the read format conversion program.　　Then, the format conversion server transmits the format-converted content C to the content user terminal administered by the manager of the movie theater A. Accordingly, it is possible to provide a content format-converted to match with the usage environment of the movie theater A, without imposing burdensome work.

【Selected Drawing】　　FIG. 6